To:	Harvey Packard for email distrib'n	**Date:**	December 17, 2003
via:	email	**cc:**	Sylvia Hamilton/SMNA
Subject:	**MINUTES – PCAG MEETING OF 11/14/2003**		

PRESENT: See sign-in roster. Harvey Packard was recognized for the valuable time he has assisted with PCAG meetings. Mr. Packard will not be attending as a representative for the Regional Board; Mr. Eric Gobler will now be in attendance.

AGENDA: No new items proposed at the meeting outset. Meeting coordinated by Chair Sylvia Hamilton.

Minutes of 10/23/03 Meeting: The minutes were approved with one adjustment. Page 3 paragraph 6 sentence one was omitted. Sylvia is looking for assistance in preparing the meeting minutes from the Regional Board or SCVWD for upcoming meetings. Kristina Seley of the Regional Board has offered to assist when available.

Attendee Sign-in Sheet: Sylvia requested all those in attendance add name/contact info to get on the mailing list. The sign-in sheet disappeared after the meeting; it should be sent to Sylvia Hamilton when found.

Meeting Day/Time: Holiday conflicts have moved the December meeting to Friday December 12th from 2 – 4 pm, after which the PCAG will return to its regular slot on the fourth Thursday of each month, 7-9 pm.

Presentation – 90% Design Report and Third Quarter Groundwater Monitoring Report : Harvey Packard (Regional Water Quality Control Board): Powerpoint slides from the *90% Design Report for On-site Contamination and Treatment of Perchlorate in Groundwater* presented along with a handout created by Jerry Orlando of Technical Outreach Service to Communities (TOSC) summarizing the Report. The full reports are posted on the SCVWD web site.

Harvey Packard: The key components of the design consist of 2 shallow extraction wells and 1 deep extraction well pumping 60-200 gpm from shallow A zone and intermediate B zone (B1 zone). These three extraction wells are proposed at the southern end of the site to capture all the southward-flowing groundwater leaving the site in those depth intervals. Figures were presented by Harvey detailing the flow lines to each well under pumping conditions; any perchlorate within these flow paths should be captured by the three wells.

Olin then plans to treat the extracted water using ion exchange and discharge, with the necessary permit from the Regional Board, through a stormdrain off site to an unlined retention pond near the new Butterfield Rd. alignment. The treated water will then evaporate or recharge groundwater. The report predicts a completion of the testing phase by the end of this year.

Questions were raised regarding northerly groundwater flow. Olin's design will only capture flow moving south, which is the predominant flow at the site. The performance monitoring wells being installed now also will only address southward flow.

Bob Wood asked about irrigation to speed up the flushing process. The 90% design does not include infiltration of water on top of site due to the possibility of lateral spreading atop shallow clay layers. Olin is considering "add-ons" to this system (considered "interim" by the Regional Board), such as bioremediation, partial haul-off of soil, irrigation.

Tom Mohr reported that the SCVWD has approved the report. He noted that Olin designed the system to allow nutrients to enter the groundwater to enhance possible bioremediation. He also requested the Regional Board require Olin to submit all reports to PCAG; a sign-up sheet requesting CD copies of the 90% Report was circulated through the PCAG.

The Regional Board is expecting a workplan by next Friday (11/21/03) detailing Olin's plan for removing the "hot spots" on site, and re-evaluating the desirability of partial haul-off of soil.

The average rate of groundwater flow was estimated to be about 3 ft/day or 1.8 ft/day. The difficulty is assessing the flow arises because some parts flow faster through preferential areas (typically stream channel deposits). Pumping in the basin is extensive enough to obscure the effects of buried channels.

The Third Quarter Groundwater Monitoring Report includes perchlorate well results from July, Aug., and Sept. It also includes new detections (about 4ppb) south of the site, near the leading edge of the plume. It will be further reviewed by the Regional Board.

Harvey then presented Figures showing groundwater gradients at different depths. Intervals with NE flow gradients include 46-50 ft, 89-99 ft, and 313-341 ft. The Regional Board is examining whether there is sufficient perchlorate at depth, and sufficient flow to the NE, to require deeper pumping and treatment. Olin's position is that the NE flow gradient data is not necessarily valid; Tom Mohr indicated that the SCVWD begs to differ with Olin. The SCVWD wants monthly monitoring to establish flow patterns.

The Regional Board will meet with Olin Dec. 9 to discuss basinwide hydrogeology and cleanup. Olin's position in the 3rd Quarter Monitoring Report is that existing wells are sufficient both for characterization of basin hydrology and contamination monitoring. The SCVWD disagrees.

Sylvia Hamilton: The PCAG was created to inform the Region Board of their position as a committee. Harvey requested they write a letter to the Regional Board, for their records, emphasizing their position on issues for all future points. Reid Fisher moved and Dennis Kennedy seconded a motion that the PCAG submit a letter to the Board stating strongly that additional monitoring wells are clearly needed to define basin stratigraphy and to permit sampling of discrete intervals. Discussion of details and a final decision were deferred to the end of the meeting, but were not revisited due to lack of time.

Presentation – Technology Certification: Terry Macaulay (California Department of Health Services - DHS): Terry discussed Water Treatment Device Certification Program for residential treatment including DHS certification for perchlorate removal.

DHS certification
Each water treatment device must have a DHS certification number and a performance data sheet with CA certificate. All certifications are based on product testing; they must reduce the contaminant, be safe, and be tested in a DHS certified lab. Terry emphasized to watch out for illegal systems and refer to CCR Title 22, Section 64463.1 for any concerns.

Ion exchange and Reverse Osmosis
Perchlorate certification is conducted with an influent of 130 ppb (the statewide "worst case") and must reduce the contaminant to 4 ppb (the draft Public Health Goal or PHG). Ion exchange is currently not available for residential use, but is being studied for point of entry (POE) systems. POE is defined as the location where water enters the house.

Ion exchange is similar to water softeners, the media must be changed out by a professional; it is not self regenerating or "do it yourself" technology. Other groundwater contaminants such as nitrate and arsenic can lead to "dumping" of these contaminants because perchlorate is preferentially picked up. Ion exchange cannot be certified without a professional to check the system.

Reverse Osmosis is in the labs ready for testing, and a testing protocol already exists. The first systems should be tested by the end of this year, and by March the first is expecting certification. There are both "do it yourself" and dealer installed systems. RO systems are Point of Use systems.

Reverse Osmosis separates organics from inorganics with a waste ratio on the order of 8:1. A storage tank collects the product water until it is needed. Components must be replaced as scheduled.

Each system contains a sediment filter, Cl removal, RO membrane, storage tank, and activated carbon. Each RO system us required to have a CA certification: Look for it and ask for it. More information including a directory of certified devices can be found at http://dhs.ca.gov/ps/ddwem/technical/certification/Devices.html

New technologies for treatment may be submitted to the DHS; the burden for developing a test protocol is placed on the submitter.

For more information contact:
Terry Macaulay
DHS
Phone 916.449.5630
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Revised Letter to Electeds: Sylvia Hamilton, Evelyn H. and Tracy H. have finished the letter to electeds and will mail it within the next few days. Any additional input should be submitted to Sylvia by Wed. 11/19.

Perchlorate Working Group (PWG) update: PWG is composed of the SCVWD and Cities. November 6th was the last meeting. A letter is being sent to the Regional Board with a list of elements regarding the cleanup and abatement order the Regional Board might issue. Harvey requested the public submit comments prior to issuing the order. PCAG will also contribute.

Suggested Agenda topics for next meeting: Tom Mohr: Discussion of how to clarify communications to public affecting real estate including refinancing, buying, and selling as it relates to perchlorate contamination. The District is inundated with unnecessary calls such as from the many areas with no basis for concern, or too-cautious buyers, sellers and lenders. Real estate lenders need to understand the situation.

Matt Crawford (realtor now on the PCAG) will find a speaker from the Real Estate Board to speak at an upcoming meeting.

NEXT PCAG MEETING: *Friday December 12, 2003, 2 – 4pm at San Martin Lions Club Hall, 12415 Murphy Ave., San Martin.* Agenda items to Sylvia Hamilton (sylvialrs@hotmail.com).

Minutes submitted by Kristina Seley, Reid Fisher